Electric Vehicles and the Environment (EVE IWG)

REPORT TO GRPE 66TH SESSION
Summary of Meetings

- **EVE Session #2 – Baltimore (13~14.9.2012)**
  - Finalized TOR, initial discussions to develop an EV reference guide.

- **EVE Session #3 – Conference Call (27.11.2012)**
  - Proposed a format for the reference guide and questionnaire.

- **EVE Session #4 – Geneva (14.1.2013)**
  - Confirmed the format for the reference guide and questionnaire, initiated information gathering.
  - Concurrence from GRPE on progress report and terms of reference

- **EVE Session #5 – Tokyo (11~12.4.2013)**
  - Completed information gathering, discussion of completed questionnaires by contracting parties and summary presentation.

- **EVE Session #6 – Geneva (3.6.2013)**
  - Sought input from CPs and other IWGs on list of priority issues to inform reference guide recommendations and guide potential future research/testing
  - All stakeholders invited to submit further literature/data.
• Questionnaire submitted by 9 organizations will inform the development of the reference guide
  ○ Contractor was retained to assist in the information gathering phase for the guide and presented findings in Tokyo.
• Definitions continue to evolve. EVE will use the common definitions from other IWG’s and VPSD.
• OICA has agreed to review first draft of the reference guide
  ○ EVE also seeking other volunteers to participate in drafting and review of the guide.
• Pending funding, the contractor will also assist in drafting the guide.
Proposed Reference Guide Recommendations

- Potential gaps in the regulatory landscape regarding electrified vehicle performance have been identified as the result of the information gathering phase:
  - Vehicle energy efficiency/range:
    - Cabin heating, Air conditioning, potential battery temperature effect on capacity and efficiency, potential battery state of charge effect on efficiency, road gradient, energy equivalency conversion methods
  - Battery performance/durability:
    - Battery durability effect on range, potential battery durability effect on kWh/km, battery performance effect on emissions, battery management system performance
  - Some of these gaps are will be addressed in future phases of WLTP

- Gaps were discussed and EVE will continue working with CPs, stakeholders and other IWGs to develop recommendations for the guide, including future potential development of a gtr
  - CPs and stakeholders are invited to submit further literature/data that will bolster recommendations for the guide
3 areas have been identified that will be included in the reference guide for information only:

- **Regulatory incentives**
  - For example multipliers for electrified vehicles

- **Regulatory standards**
  - How are electrified vehicles incorporated in fuel economy calculations

- **EV Charging**
  - Infrastructure and standardization of charging
  - Issues identified with vehicle response to charging shall be covered in the focus areas identified above.
EVE Next steps

- **Draft EVE Reference Guide**
  - Transpose information collected with the questionnaires and discuss first draft at EVE-07 in Beijing
  - Develop reference guide recommendations

- **Conduct EV research and/or testing to support guide recommendations**
  - Gather and analyze literature/data from other contracting parties

- **Coordinate with other GRPE working groups**
  - WLTP, VPSD, HDH, EPPR, EVS

- **Continue EV information sharing presentations**
  - All stakeholders are invited to present or submit topics of interests for presentations
  - Continue sharing information on standardization
# Revised EVE Roadmap - May 2013

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<th>Task</th>
<th>Start Date</th>
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<th>EVE-01</th>
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<td>1.0 Adopt EVE Terms of Reference</td>
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<td>2.2 Discuss potential research gaps and agree on test plan</td>
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<td>3.6 Develop recommendations on potential future grv development</td>
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**EVE IWG**
Upcoming EVE Meetings

- **EVE #7 – Beijing, China, Oct. 17 – 18, 2013**
  - Review first draft of reference guide and draft recommendation

- **EVE #8 – Geneva, January 2014 GRPE**
  - Submit second draft as an informal document to GRPE by Dec. 1, 2013 to discuss and receive comments during GRPE

- **EVE #9 – To be decided, February 2014**
  - Revise second draft based on GRPE comments
  - Discuss need for a new mandate for EVE

- **EVE #10 – Geneva, June 2014 GRPE**
  - Submit third draft as a formal document to GRPE by March 1, 2014
  - Seek final approval at Nov. 2014 WP.29 following GRPE concurrence